

REMARKS

Claims 1-11 are pending in this application. Claims 1-11 stand rejected. By this Amendment claims 1 and 11 have been amended. The amendments made to the claims do not alter the scope of these claims, nor have these amendments been made to define over the prior art. Rather, the amendments to the claims have been made to improve the form thereof. In light of the amendments and remarks set forth below, Applicants respectfully submits that each of the pending claims is in immediate condition for allowance.

Applicants respectfully request reconsideration and withdrawal of the rejections.

Paragraphs 2-4 of the Office Action reject independent claims 1 and 11 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,225,569 (“Hashimoto”) in view of U.S. Patent No. 4,268,614 (“Ueyama”). Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or combine references to arrive at the claimed subject matter. The prior art references must also teach or suggest all the limitations of the claim in question. See, M.P.E.P. § 706.02(j). A reference can only be used for what it clearly discloses or suggests. See, In re Hummer, 113 U.S.P.Q. 66 (C.C.P.A. 1957); In re Stencel, 4 U.S.P.Q.2d 1071, 1073 (Fed. Cir. 1987). Here, the references, whether taken individually or in combination, do not disclose or suggest the invention claimed by the Applicants.

Among the limitations of independent claims 1 and 11 not present in the cited references is a plating, such plating covering said pad entirely and extending into the via towards the second surface of said printed circuit board.

Hashimoto discloses a wiring substrate for a flip chip IC. In Hashimoto, a ceramic substrate 2 has via 3 upon which a pad 11 is formed. The pad 11 has thereon a plating 5 on the upper surface of the substrate 2. However, this is unlike Applicants' explicitly recited limitation. Applicants explicitly recite the plating extending into the via towards the second surface of the printed circuit board. As such, Hashimoto fails to disclose the plating as set forth in Applicants' claim.

Further, as noted in the Office Action, the via in Hashimoto is not connected through the entire cross-section of the circuit board. See Office Action at 3. The Office Action then includes Ueyama for the teaching that the via connects wiring on a first and second side of a circuit board. However, Ueyama fails to disclose Applicants' explicitly recited limitation of a plating covering the pad and extending into the via towards the second surface of the board. Thus, Ueyama fails to cure the deficiency in Hashimoto noted by Applicants above. As such, claims 1 and 11 are allowable over the combination of Hashimoto and Ueyama.

Claims 2-10 depend from, and contain all the limitations of claim 1. These dependent claims also recite additional limitations which, in combination with the limitations of claim 1, are neither disclosed nor suggested by the art and are also believed to be directed towards the patentable subject matter. Thus, claims 2-10 should also be allowed.

Paragraph 6 of the Office Action rejects claims 5, 6, 9, and 10 under 35 U.S.C. § 103(a) over Hashimoto in view of Ueyama and further in view of U.S. Patent No. 5,355,283 (“Marrs”). Applicant respectfully traverses this rejection.

Claims 5, 6, 9, and 10 depend from claim 1. Marrs was not included to cure the deficiencies in Hashimoto and Ueyama discussed above but to include additional limitations which, even if disclosed by the Marrs reference, do not cure the deficiencies noted above. As such, Applicants respectfully request reconsideration and withdrawal of this rejection.

Applicants have responded to all of the rejections and objections recited in the Office Action. Reconsideration and a Notice of Allowance for all of the pending claims are therefore respectfully requested.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If the Examiner believes an interview would be of assistance, the Examiner is welcome to contact the undersigned at the number listed below.

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Respectfully submitted,

By 

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